



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,757	09/19/2005	Marc Ruymen	RUYMEN3	8421
1444 7590 04/04/2007 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER STAFIRA, MICHAEL PATRICK	
			ART UNIT	PAPER NUMBER
			2886	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/04/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/549,757	Applicant(s) RUYMEN ET AL.	
	Examiner Michael P. Stafira	Art Unit 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/2006</u> <u>5/30/06</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2886

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 396 290.

Claim 1

EP 0 396 290 discloses means to convey (Fig. 6, Ref. 11) these products over a track in the shape of a product flow extending in the width (Fig. 5B & 6)(Co. 3-4, line 57-4), characterized in that it comprises at least one scanner (Fig. 6, Ref. 14) to inspect the products, whereby this scanner is situated on one side of the aforesaid track (See Fig. 5B)(Col. 3, lines 44-51; Col. 1, lines 42-51).

Claim 2

EP 0 396 290 discloses at least two scanners (Fig. 5B, Ref. 14), situated on either side of the aforesaid track respectively, and in that they scan the products as of the lower side and/or rear side, in particular in a slanting direction (See Fig. 5B).

Claim 3

EP 0 396 290 further discloses that the above-mentioned scanner or scanners are situated, seen from above, entirely beside the aforesaid track (See Fig. 5B, Ref. 14).

Claim 8

EP 0 396 290 discloses a means for moving the products along a track consist of a conveyor belt (Fig. 6, Ref. 11), which is erected such that the products leave this conveyor belt (Fig. 6, Ref. 11) near its far end, and in that the above-mentioned scanner or scanners (Fig. 6, Ref. 14) operate in a plane immediately following this conveyor belt (See Fig. 6).

Art Unit: 2886

Claim 9

EP 0 396 290 further discloses at least one additional scanner (Fig. 6, Ref. 14) which inspects the products as of the top side or front side (See Fig. 5B).

Claim 10

EP 0 396 290 further discloses a unit (Fig. 6, Ref. 18, 19) for sorting the inspected products, driven by means of a control unit which is controlled by the above-mentioned scanner or scanners (See Fig. 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-7, 11-12, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 396 290 as applied to claim 1 above, and further in view of Campbell et al. ('218).

Claim 4

EP 0 396 290 substantially teaches the claimed invention except that it does not show the scanner are erected according to vertical planes with their longitudinal direction along the sides of the track. Campbell et al. ('218) shows that it is known to provide scanners in the vertical planes with the longitudinal direction along the sides of the track (See Fig. 2, Ref. 90) for an optical sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the vertical scanners of Campbell et al. ('218) for the purpose of providing a illumination

Art Unit: 2886

direction that covers the length of a inspection path, therefore requiring less scanning elements and reducing cost.

Claim 5

EP 0 396 290 substantially teaches the claimed invention except that it does not show a bending mirror for scanning a plane. Campbell et al. ('218) shows that it is known to provide a bending mirror (Fig. 2, Ref. 96) for an optical sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the bending mirror of Campbell et al. ('218) for the purpose of providing a change of direction allowing the illumination to cover the entire scanning direction, therefore requiring less optical scanning elements.

Claim 6

EP 0 396 290 substantially teaches the claimed invention except that it does not show a adjusting the position and/or size of the angle over which is being scanned. Campbell et al. ('218) shows that it is known to provide a means for adjusting the position or angle for scanning (Col. 6, lines 42-44) for an optical inspection sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the adjusting mirrors of Campbell et al. ('218) for the purpose of providing a scanning system that can adjust to different sizes of scanning paths, therefore increasing versatility of the apparatus of scanning different sizes of material.

Claim 7

EP 0 396 290 substantially teaches the claimed invention except that it does not show a cleaning device. Campbell et al. ('218) shows that it is known to provide a cleaning device for an optical inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the cleaning device of Campbell et al. ('218) for the purpose of providing a

Art Unit: 2886

means for reducing maintenance of the measurement system, therefore ensuring quality measurements.

Claim 11&12

EP 0 396 290 substantially teaches the claimed invention except that it does not show a window forms an angle of 90 degrees toward the product flow. Campbell et al. ('218) shows that it is known to provide a window this is provided at a 90 degree or equal to 90 degrees toward the product flow (Fig. 2, Ref. 102) for an optical inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the window of Campbell et al. ('218) for the purpose of providing a protective layer for the optical elements, therefore reducing the amount of time the optical apparatus is down for maintenance.

Claim 14&16

EP 0 396 290 substantially teaches the claimed invention except that it does not show a blowing device for creating an air flow towards the product flow. Campbell et al. ('218) shows that it is known to provide a blower for creating an air flow towards the product flow ((Fig. 2, Ref. 114) for an optical inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the blowing device of Campbell et al. ('218) for the purpose of providing an air flow which prevents material from building-up on the system, therefore helping to maintain the inspection performance.

Claim 15

EP 0 396 290 substantially teaches the claimed invention except that it does not show the window is sealed by means by means of light transmitting material. Campbell et al. ('218) shows that it is known to provide a light transmitting sealing material (See Fig. 2) for an optical

Art Unit: 2886

inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the light transmitting sealing material of Campbell et al. ('218) for the purpose of providing a method of sealing the optical elements from contamination, therefore increasing the service life of the optical apparatus.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 396 290 and in combination with Campbell et al. ('218) as applied to claim 11 above, and further in view of Sakaki ('279).

Claim 13

EP 0 396 290 in combination with Campbell et al. ('218) substantially teaches the claimed invention except that it does not show the window extends almost vertically. Sakaki ('279) shows that it is known to provide an almost vertical window (Fig. 1, Ref. 8) for an optical inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 in combination with Campbell et al. ('218) with the almost vertical window of Sakaki ('279) for the purpose of providing a protective layer for the optical elements, therefore reducing the amount of time the optical apparatus is down for maintenance.

6. Claims 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 396 290.

Claim 17

EP 0 396 290 discloses the steps of the products are conveyed along a track (Fig. 6, Ref. 11) in the shape of a product flow extending in the width and whereby these products are scanned (Fig. 5B & 6)(Co. 3-4, line 57-4), characterized in that at least one scanner (Fig. 5B,

Art Unit: 2886

Ref, 14) is applied which is situated on one side of the aforesaid track (See Fig. 5B)(Col. 3, lines 44-51; Col. 1, lines 42-51).

Claim 18

EP 0 396 290 discloses that at least two scanners (Fig. 5B, Ref. 14) are used, which are situated on either side respectively of the aforesaid track (See Fig. 5B).

Claim 19

EP 0 396 290 discloses that together they scan the entire product flow (See Fig. 5B, Ref. 14).

Claim 20

EP 0 396 290 further discloses that the above-mentioned products are scanned by means of the above-mentioned scanner or scanners along the lower side and/or rear side, in particular slantingly at an angle (See Fig. 5B, Ref. 14).

Claim 21

EP 0 396 290 further discloses that the products are scanned by means of the above-mentioned scanner or scanners while performing a coasting flight motion (See Fig. 6).

Claim 22

EP 0 396 290 further discloses that the above-mentioned products are also scanned as of the top side and/or front side by means of at least one additional scanner (See Fig. 5B, Ref. 14).

Claim 23

EP 0 396 290 further discloses that it is used for sorting the above-mentioned products whereby, as a function of the data obtained by means of the scanning, an automatic selection is carried out (Col. 3-4, lines 51-10).

Art Unit: 2886

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 396 290 as applied to claim 17 above, and further in view of Mallon et al. ('206).

Claim 24

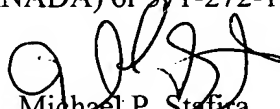
EP 0 396 290 substantially teaches the claimed invention except that it does not show the product is scanned on at least three sides with 90 degrees in relation to each other. Mallon et al. ('206) shows that it is known to provide at least three scanned beam with 90 degree relation (Col. 10, lines 26-33; See Fig. 7 & 8) for an optical inspection and sorting apparatus. It would have been obvious to combine the device of EP 0 396 290 with the scanning directions of Mallon et al. ('206) for the purpose of providing a scanning profile that covers the entire surface of the inspection path, therefore increases the reliability of the measurement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2886

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael P. Stefira
Primary Examiner
Art Unit 2886

March 26, 2007